



Certificate No:
TAA00002YT

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Misc. detector

with type designation(s)

MMP8, TMP1, HMP3, HMP4, HMP5, HMP7, HMP8, DMP5, DMP6

Issued to

Vaisala Oyj
Vantaa, Finland

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	B
Humidity	B
Vibration	B
EMC	B
Enclosure	B / IP66

Issued at **Høvik** on **2021-03-24**

This Certificate is valid until **2026-03-23**.

DNV local station: **Finland CMC**

for **DNV**

Approval Engineer: **Ståle Sneen**

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Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

Vaisala probes with a digital output (RS-485 / Modbus RTU protocol). The probes have a two-part structure, with measurement electronics contained in the probe body and sensor(s) in the probe head. The probe body and the probe head are connected by a cable. Length options for this connecting cable depend on the probe model.

The probes are compatible with Vaisala Indigo transmitters. They can also be connected to Vaisala Insight software.

The following probes are covered by this type approval:

Type / Description	Model	Sensors	Power Supply
Humidity and Temperature Probes:	HMP3	HUMICAP R2 / R2C / 180VC + Pt100	15...30 VDC
	HMP4	HUMICAP R2 / R2C + Pt100	15...30 VDC
	HMP5	HUMICAP R2 / R2C + Pt100	15...30 VDC
	HMP7	HUMICAP R2 / R2C / 180VC + Pt100	18...30 VDC
	HMP8	HUMICAP R2 / R2C + Pt100	15...30 VDC
Moisture in Oil Probe:	MMP8	HUMICAP 180L2 + Pt100	15...30 VDC
Temperature Probe:	TMP1	Pt100 (RTD Class F0.1 IEC 60751)	15...30 VDC
Dew Point and Temperature Probes:	DMP5	DRYCAP 180S + Pt100	15...30 VDC
	DMP6	DRYCAP 180S	15...30 VDC

See User Guide M212022EN and M212357EN for more information.

All probes have been tested with 24 VDC nominal operating voltage.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE